

The present invention provides a miniaturized integrated nucleic acid diagnostic device and system. The device of the invention is generally capable of performing one or more sample acquisition and preparation operations, in combination with one or more sample analysis operations. For example, the device can integrate several or all of the operations involved in sample acquisition and storage, sample preparation and sample analysis, within a single integrated unit. The device is useful in a variety of applications, and most notably, nucleic acid based diagnostic applications and *de novo* sequencing applications.